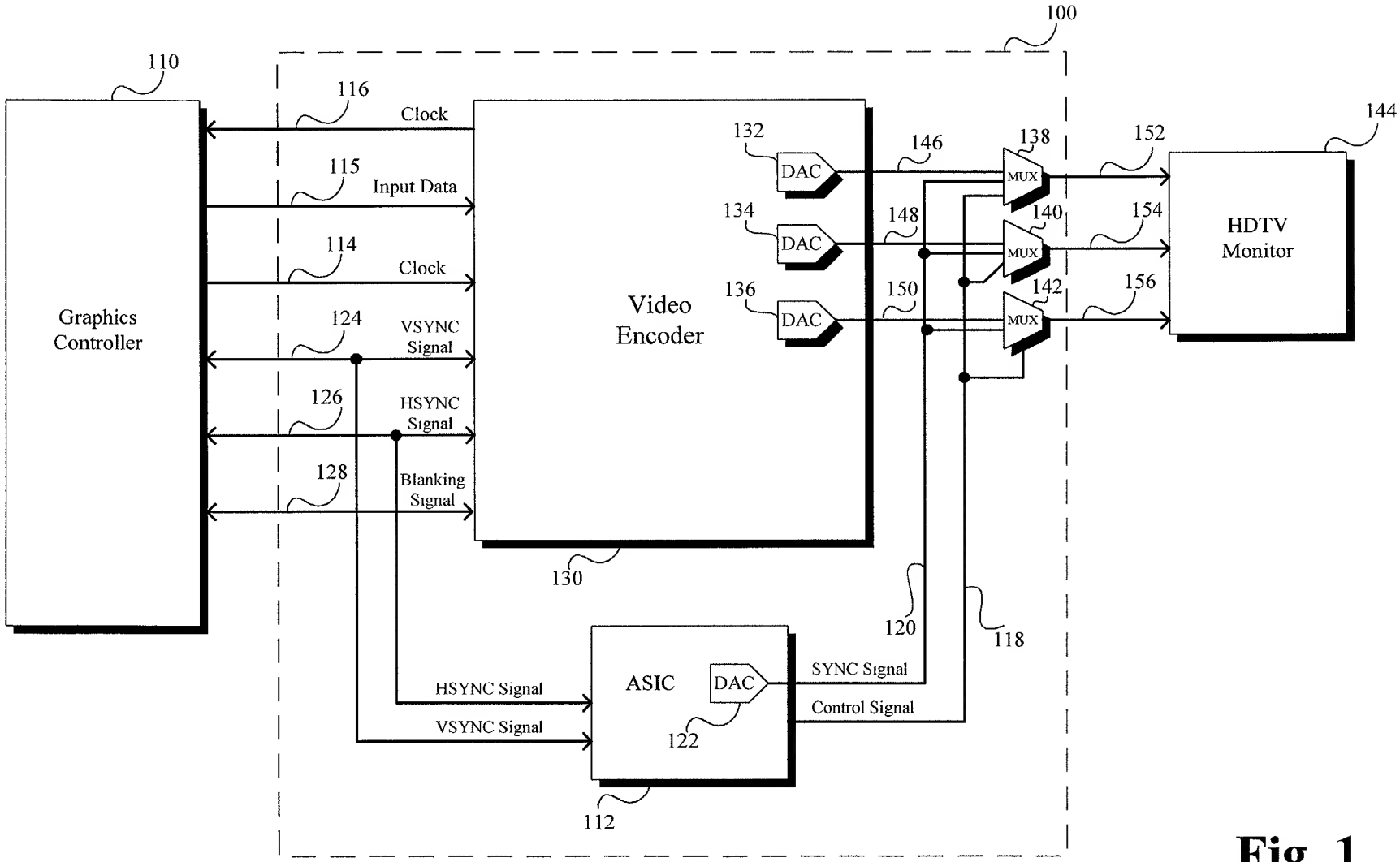


Fig. 1
(Prior Art)

Fig. 2

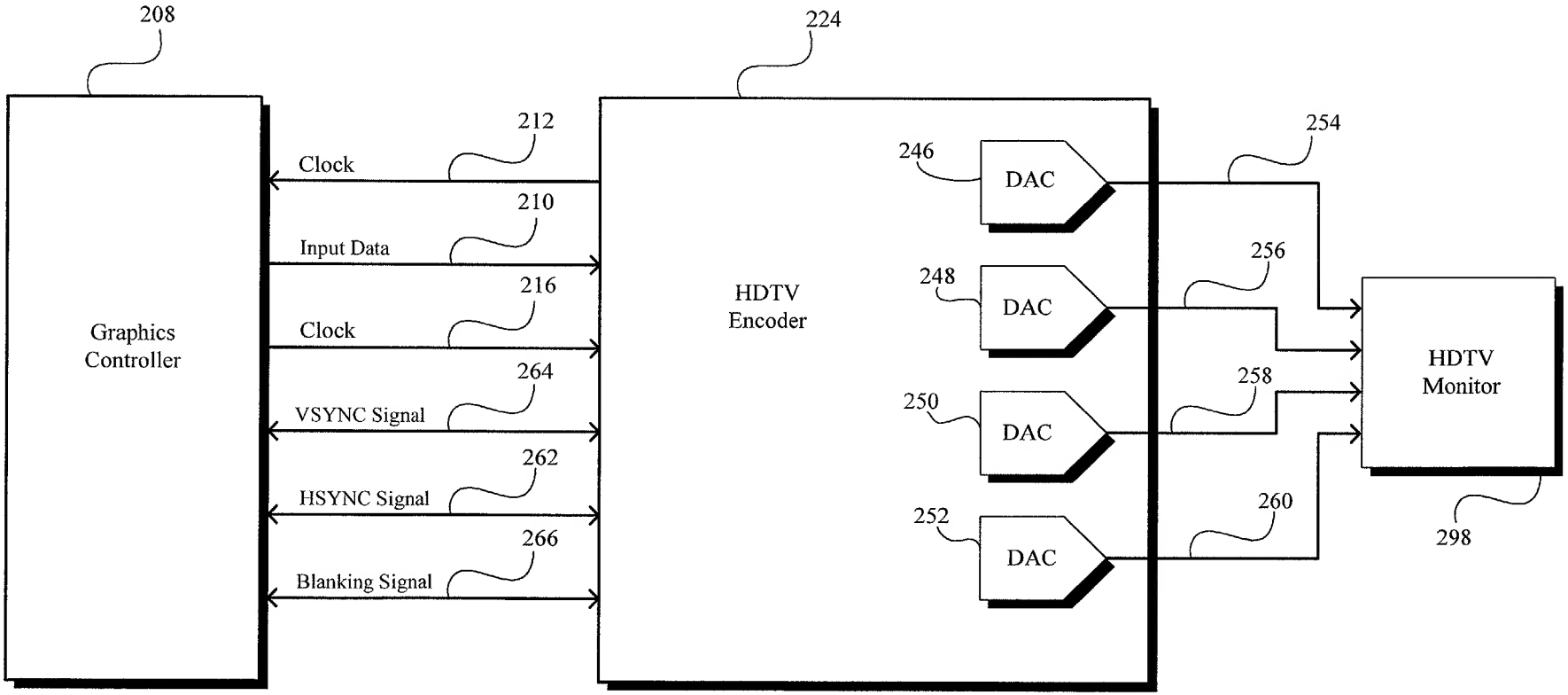
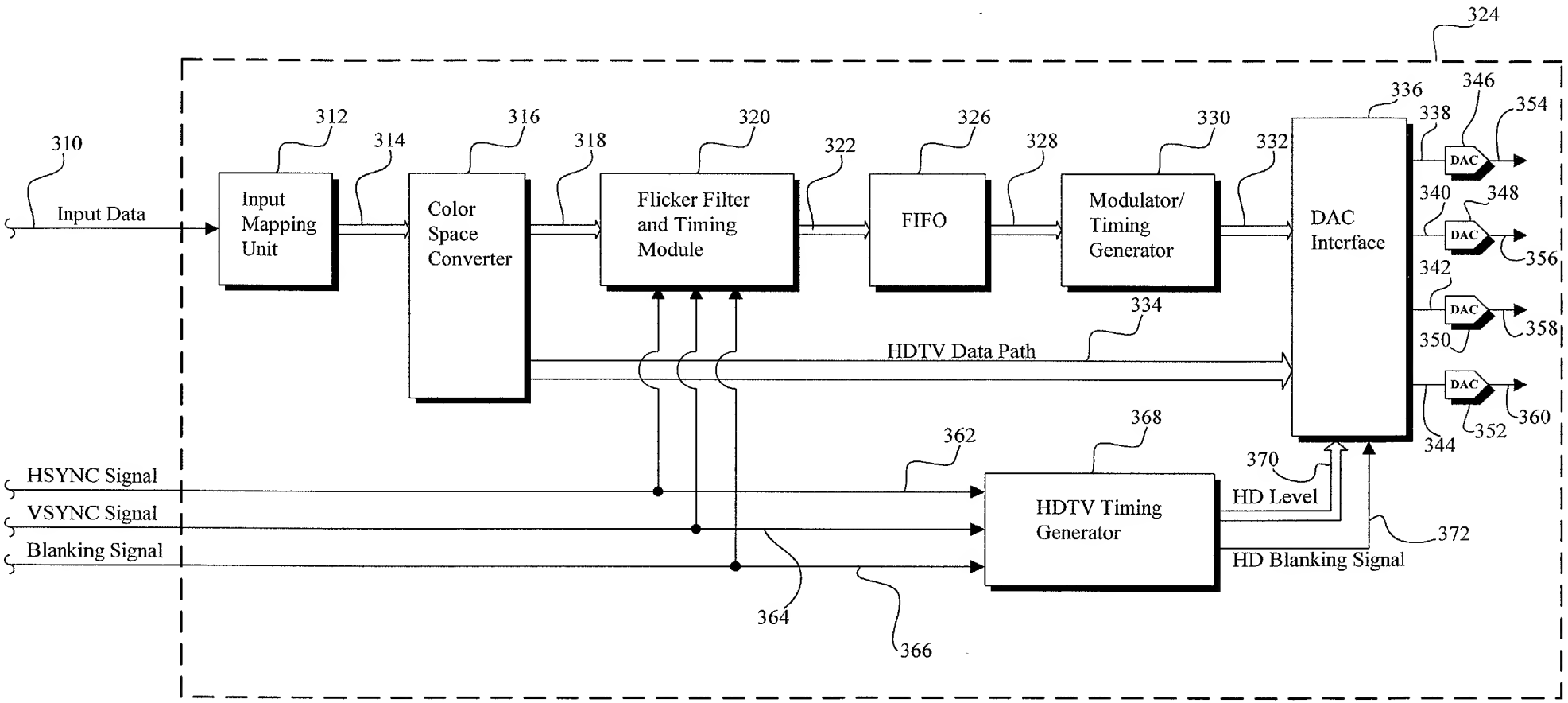

208
224
212
Clock
210
Input Data
216
Clock
264
VSYNC Signal
262
HSYNC Signal
266
Blanking Signal
Graphics Controller
HDTV Encoder
246
DAC
248
DAC
250
DAC
252
DAC
254
256
258
260
HDTV Monitor
298

Fig. 3


310
Input Data
312
Input Mapping Unit
314
316
Color Space Converter
318
320
Flicker Filter and Timing Module
322
326
FIFO
328
330
Modulator/ Timing Generator
332
334
HDTV Data Path
336
DAC Interface
338
340
342
344
346
348
350
352
354
356
358
360
DAC
362
364
366
368
HDTV Timing Generator
370
HD Level
372
HD Blanking Signal
324
HSYNC Signal
VSYNC Signal
Blanking Signal

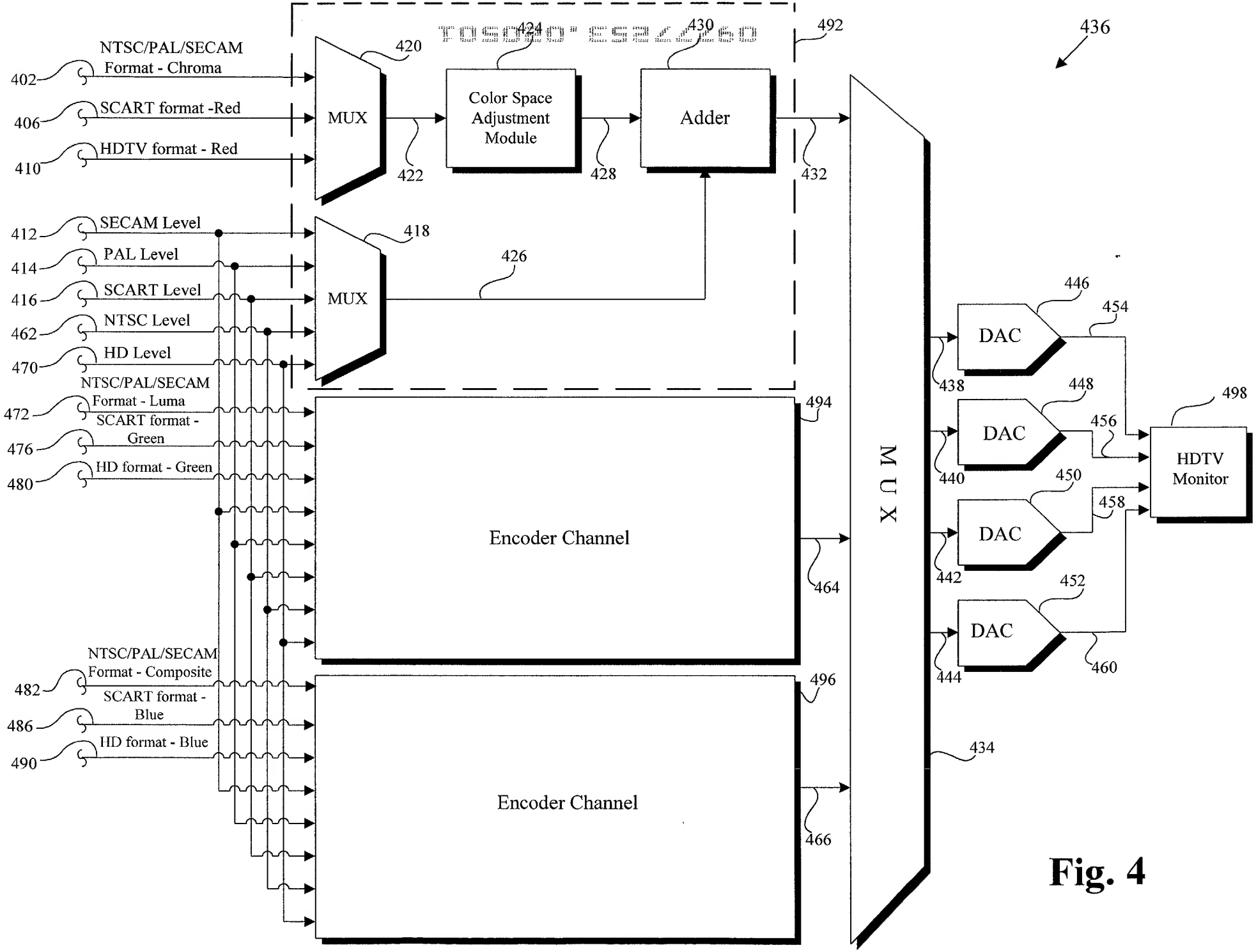
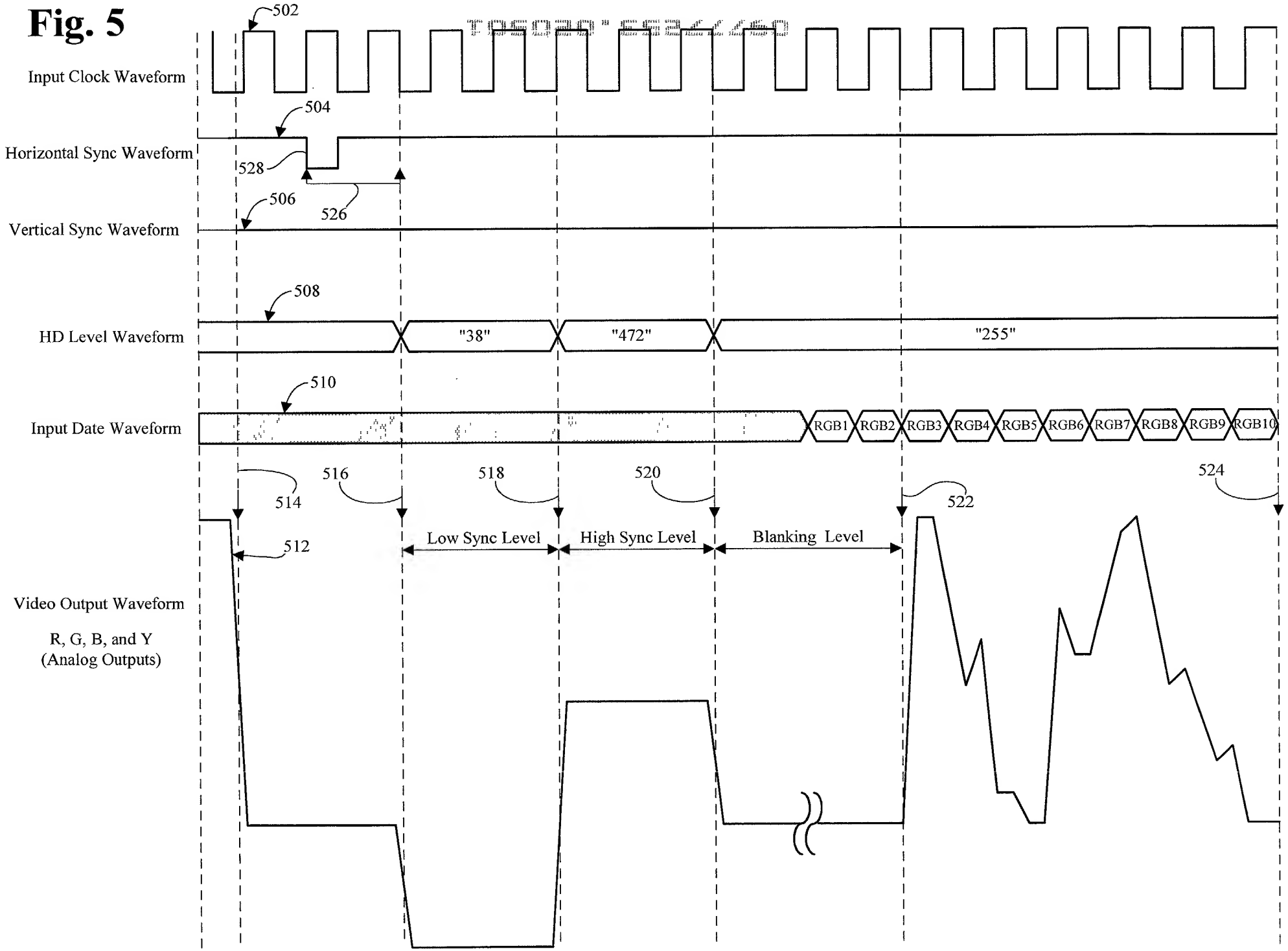

436
492
NTSC/PAL/SECAM
Format - Chroma
402
SCART format -Red
406
HDTV format - Red
410
MUX
420
422
Color Space
Adjustment
Module
424
428
Adder
430
432
SECAM Level
412
PAL Level
414
SCART Level
416
NTSC Level
462
HD Level
470
MUX
418
426
NTSC/PAL/SECAM
Format - Luma
472
SCART format -
Green
476
HD format - Green
480
Encoder Channel
494
464
NTSC/PAL/SECAM
Format - Composite
482
SCART format -
Blue
486
HD format - Blue
490
Encoder Channel
496
466
MUX
434
DAC
446
438
DAC
448
440
DAC
450
442
DAC
452
444
454
456
458
460
HDTV
Monitor
498

Fig. 4

Fig. 5


502
Input Clock Waveform
504
Horizontal Sync Waveform
528
526
506
Vertical Sync Waveform
508
HD Level Waveform
"38"
"472"
"255"
510
Input Date Waveform
RGB1
RGB2
RGB3
RGB4
RGB5
RGB6
RGB7
RGB8
RGB9
RGB10
514
516
518
520
522
524
512
Low Sync Level
High Sync Level
Blanking Level
Video Output Waveform
R, G, B, and Y
(Analog Outputs)